DOE/EH – 0682

DAY & ZIMMERMANN,

Protection Technology Hanford

Report from the DOE Voluntary Protection Program Recertification Review (at the STAR level),

June 28, 2004

U.S. Department of Energy
Office of Environment, Safety and Health
Office of Corporate Performance Assessment
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Contents

Abbreviations and Acronyms

AJHA	Automated Job Hazard Analysis
BLS	Bureau of Labor Statistics
CAIRS	Computerized Accident/Incident Reporting System
DOE	U.S. Department of Energy
DOE-VPP	U.S. Department of Energy Voluntary Protection Program
DOE-HQ	U.S. Department of Energy Headquarters
EP	Emergency Preparedness
ES&H	Environment, Safety, and Health
HAMTC	Hanford Atomic Metal Trades Council
HGET	Hanford General Employee Training
HGU	Hanford Guards Union
ISMS	Integrated Safety Management System
JHA	Job Hazard Analysis
O&M	Operations and Maintenance
ORPS	Occurrence Reporting Process System
OSHA	Occupational Safety and Health Administration
PPE	Personal Protective Equipment
PTA	Patrol Training Academy
PTH	Day & Zimmermann, Protection Technology Hanford
S&H	Safety and Health
VPP	Voluntary Protection Program

Executive Summary

The DOE-VPP onsite review of Day & Zimmermann, Protection Technology Hanford (PTH) recertification was conducted from June 24-29, 2004 at Richland, Washington. This review audited specifically the nature and substance of the continuous improvement of their VPP program since their initial STAR award three years ago, as yearly reported in their annual reports. Among the most significant events during this period, which both framed and characterized this period of their growth in safety and health operations, were the attacks of September 11, 2001, and the abrupt notification in 2003 of the Hanford Guard Unit (HGU), the force's labor union, of their consideration to withdraw support for the VPP.

Both events initiated immediate and major changes in the PHT safety and health management that reflected well on the stamina and vigor of their STAR program. As the Team noted, as the primary mission of PTH is national security, safety management and security operations are tightly bound. Stress levels among the security force increased dramatically on 9/11, and continue to be a major factor in safe operations. As reflected in statistical performance, and in the Team's interviews, their VPP performance adjusted and continues to adjust to this extended stress on the workforce. As additional changes are, of necessity, introduced to this maturing security posture, more stress will no doubt be applied to these workers. Accordingly, VPP will be required to continuously improve to adequately anticipate its impact on the safety and health on the job.

The second event, the HGU notification, while an important indicator of program performance, generated its own immediate response at PTH. Changes made included the creation of an ongoing employee driven Safety Refocus Workshop that immediately corrected certain communication issues and other issues. It further commenced the operation of a dedicated site safety representative, staffed by one of the force members. The Team noted from the interviews with the leadership of the union both a satisfaction and a confidence that the PTH VPP was with these responses, fully back on track, and that the HGU strongly supported the STAR recertification. The Team also noted that both employees and managers are eager to continue and expand the utility and the impact of their Safety Refocus Workshop to further continuously improve their VPP.

The following summarizes the review team's other observations and analysis.

Management Leadership

The Team observed a high degree management commitment to safety and health (S&H). The leadership is capable, competent and well directed. The General Manager/Director of PTH and other managers visibly participate in safety programs, and have successfully established an organization to implement an Integrated Safety Management System (ISMS) and VPP. The PTH management believes that all accidents are preventable and encourage a safety culture based on an "injury-free workplace." VPP is considered as a method to measure the success of ISMS with a view that they complement each other.

Employee Involvement

Employees are passionate about work, their company, and their coworkers. They are mature, well seasoned, well qualified and competent. The team found that the workers at PTH are cooperative and ready to follow, with awareness to the high hazards existing at the site. All employees understand that they have the "Stop Work" authority if unsafe conditions exist. They have no fear of reprisal and are ready to raise safety issues through a variety of communication means. PTH continues to satisfy the basic VPP requirements for Employee Involvement.

Worksite Analyses

The VPP onsite review team found that PTH satisfies the basic requirements of DOE-VPP criteria. The worksite analysis processes are structured and implemented to control hazards to the workers, environment and public. Hazard analysis processes incorporated a variety of tools. A comprehensive baseline hazards analysis has been completed by S&H professionals for all facilities, accident investigation and lessons learned processes are developed and implemented. The site has established trending of injury and non-injury safety & health data; results are used for continuous improvement action development; results are communicated to employees.

Hazard Prevention and Control

PTH has two safety professionals and a bargaining unit safety representative on its staff. Further support is readily available from other facilities across the Hanford site from such operators as Fluor Hanford, which has several facilities with STAR recognition. The Team audited and found that PTH has full operation and exercise of policies, procedures and ISM-based plans to operate safely. Changes are being made ro reflect the changed nature of security requirements and Hanford site operations. In particular, the Team noted that personal protective equipment (PPE) policies are in revision, and are being integrated into their AJHA/JHA processes.

Safety and Health Training

ISM provides the core foundation for PTH training programs. The Team noted that these programs serve well to train workers, supervisors and managers to recognize, report, and mitigate hazards. This training further includes working effectively with PTH policies and procedures to perform daily tasks.

Conclusion

PTH has satisfied all the requirements for participation in the DOE-VPP. The areas for continuous improvement noted in their most recent annual report are a strong baseline for continuous improvement during the balance of 2004. Other areas noted by the Team included additional strengthening of standard procedures to improve communications among participants. The Team recommends STAR recertification for PTH.

I. Introduction

The Department of Energy Voluntary Protection Program (DOE-VPP) onsite review of PTH was conducted during June 26-29, 2004, at the Hanford Site in Richland, Washington. Protection Technology Hanford (PTH) is the Safeguards and Security subcontractor to Fluor Hanford, and has site-wide responsibilities in this regard. PTH has 347 full-time employees working; 152 are non-bargaining employees and manager/supervisors, and 195 are bargaining employees represented by the Hanford Guards Union (HGU), and Hanford Atomic Metal Trades Council (HAMTC). PTH also directly supervises a subcontractor – their Safeguards Director from Battelle Memorial Institute. The Department of Energy's Richland Operations Office provides guidance to PTH through Fluor Hanford on a regular basis, and has oversight responsibility.

PTH is organizationally dispersed across 560 square miles, and operates out of essentially eight (8) buildings. Some of these buildings are historic and therefore contain some outdated, antiquated equipment.

The STAR level recognition was conveyed on the site in 2001. During this time, the site was under the operation of Day & Zimmerman, Protection Technology Hanford. For the purposes of this report, PTH, HGU, and assigned HAMTC employees are considered as one VPP site, and are addressed here together as "PTH."

The Team evaluated the safety programs of PTH against the Protocol for DOE-VPP Star Site Recertification of the DOE-VPP. The DOE-VPP recertification review team (Team) consisted of safety professionals from DOE Headquarters (HQ), DOE-Richland Operations Office, three safety professionals from three different Hanford Site contractors, and two line employees from two different Hanford Site contractors. (See Appendix for a roster of the Team.) During the site visit, the Team evaluated representative samplings of relevant safety documents and conducted interviews of employees (both bargaining and non-bargaining) and management to evaluate and verify the information necessary to perform the recertification review.

II. Injury and Illness Rate Information and Trends

A review of the Occupational Safety and Health Administration (OSHA) 200/300 logs was conducted at PTH. The rates below include all PTH employees.

INJURY AND ILLNESS DATA FOR PTH					
Calendar Year	Lost Workday Cases	Total Recordable Cases	Employee Hours	Lost Workday Case Incident Rate	Total Recordable Case Incident Rate
2001	0	9	613,929	0.00	2.93
2002	2	6	624,625	0.64	1.92
2003	1	6	642,842	0.31	1.87
3-Year Average	1.0	7.0	627,132	0.32	2.23
Bureau of Labor Statistics (BLS) average for SIC 738 Miscellaneous Business Services for CY2002				1.5	3.0
PTH percent below BLS rate				51%	29%

The information on the OSHA 200/300 logs supports the data provided in the PTH self-evaluations, the organization's first report of injury forms and other recordkeeping documents. A health and safety professional is responsible for classifying all injuries and illnesses for OSHA recordability and is responsible for maintaining the OSHA log. Injury/illness data is submitted for inclusion in the DOE HQ Computerized Accident/Incident Reporting System (CAIRS). Routinely, the data output from CAIRS is checked against the actual data reported and submitted. This ensures that accurate information is being presented in the CAIRS database. The staff understands the recordkeeping requirements including the 29 CFR 1904 recordkeeping changes that went into effect in January 2002.

III. Summary of Performance Related to VPP Tenets and Sub-elements

The level of management leadership, employee involvement, worksite analysis, hazard prevention & control, and safety & health training at this site generally meets DOE-VPP criteria for STAR level recognition. The sub-elements of the tenets and an evaluation of the PTH performance in selected areas are addressed.

A. Management Leadership

PTH's commitment is demonstrated in strong safety and health policy statements, allocation of resources necessary to support all safety and health program activities, attention to employee identified safety and health concerns, and active participation in safety committee activities. PTH management – at all levels – demonstrates its commitment to a safe and healthful workplace for all employees through the implementation of ISMS and VPP. Top-level management from PTH is visible and actively participates in the S&H program.

PTH is organized to support its roles, responsibilities, and policies. Roles and responsibilities for employees and managers are identified in position descriptions and the labor bargaining agreements. Accountability is demonstrated in performance evaluations for non-bargaining employees and managers, as well as through the means/methods identified in the union agreement for bargaining unit employees. Resources are budgeted and allocated at sufficient levels.

An integrated framework has been established to provide a template to ensure the S&H planning process is comprehensive. However, this planned template is not yet fully developed for 2004 (this area for improvement was identified by PTH in their annual self-evaluation covering 2003 – see "Conclusion and Recommendations").

Annual program evaluations have been conducted using VPP criteria and ISMS core functions and guiding principles; the results of annual program evaluations and other S&H trending data are used by PTH to develop improvement strategies/actions for the coming year. The last annual VPP program review was recently completed in January 2004 to support the 2003 Annual Report..

Employee orientations are well developed and implemented effectively at all levels, including employee notification of PTH participation in VPP.

PTH meets the basic requirements of the Management Leadership tenet and its sub-elements as described above.

B. Employee Involvement

The information gathered for this portion of the report relies heavily on observations of employees in the workplace while conducting their routine duties, and on interviews of employees. Employees generally feel that they own the safety culture. Employees at all levels feel comfortable to raise concerns and participate in their resolution. Employees in the bargaining unit (Patrol) feel that barriers to communication to and from management still exist to some extent – but are quick to add that management has taken, and continues to take positive steps to rectify this situation.

Workers were candid and showed no fear in talking with the Team during interviews. The Team interviewed 140 bargaining unit employees (70% of the total population) and 80 exempt employees (50% of the total population). All employees indicated that they understood their rights and responsibilities, and are very knowledgeable about their responsibilities regarding safety and health. Interviews confirmed that a strong safety culture exists at all levels, and employees feel empowered to voice safety concerns. Taking safety home was voiced (by bargaining and non-bargaining employees) as a major improvement change over the past three (3) years.

Employees are actively involved in two (2) safety councils (committees) at PTH; the Patrol Safety Council (bargaining unit) and the Safeguards and Security Safety Council (non-bargaining unit). Employees are proud of their worksite and feel safety is integral to maintaining a world-class safeguards and security organization.

Employee ownership took a significant "hit" in the Patrol area when the HGU "pulled" their support of the VPP. However, it is evident that employee involvement and empowerment has good roots throughout this worksite. It further appears that it can be rejuvenated to pre-2003 levels, given time and sustained attention by all employees and management.

PTH meets the basic requirements of the Employee Involvement tenet and its sub-elements as described above.

C. Worksite Analysis

New or modified facility designs, operations, processes and training at PTH are reviewed and analyzed to identify and mitigate potential hazards before work or training is started. Comprehensive baseline hazard surveys have been completed; updates/reviews are in progress.

Inspections of PTH work areas are performed by safety council members and managers; results are documented. The past method for ensuring the entire worksite is inspected every quarter is not fully functional; trending of inspection results is not being performed consistently (this area for improvement was identified by PTH in their annual self-evaluation covering 2003 – see "Conclusion and Recommendations").

All work performed by PTH employees outside of the office environment is planned using either the Automated Job Hazard Analysis (AJHA) or Job Hazard Analysis (JHA) process. Pre-job briefings

are held for maintenance and installation activities; a daily pre-job briefing (line-up) is held at the start of each shift in Patrol. Employee involvement, while active during origination of the AJHA and JSAs, is not as active in the review/revision of AJHA/JSAs.

Employees are encouraged and expected to identify and report conditions that compromise or are not in compliance with company S&H programs. While it is clear that this process – overall – is in place and effective, the "feedback element" of the process is not as strong as it once was in the Patrol work areas. In addition, the "logbook" process has recently been revitalized in non-Patrol facility locations and employees are being refamiliarized with this process. Data from these two processes is not consistently trended.

PTH systematically investigates injury and near-miss events, including first-aid type injuries, and occurrences; a formal lessons learned program is in place. Trending of safety & health event data is performed regularly and communicated. As previously mentioned, trending of inspection data and employee reports of hazards needs attention.

PTH meets the basic requirements of the Worksite Analysis tenet and its sub-elements as described above.

D. Hazard Prevention & Control

PTH has two safety professionals and a bargaining unit safety representative on staff. Certified S&H personnel in a variety of areas is immediately available from Fluor Hanford and other Hanford Site contractors. PTH has strong safety and health rules in the hierarchy of policies, procedures, and ISM plans; safety and health rules are used to guide and enforce/reward conformance to policies and requirements.

Site policy regarding the use of personal protective equipment (PPE) is in the process of being modified to reflect the changing nature of the Hanford Site Mission (Operations and Maintenance [O&M] to [D&D]); a variety of PPE is made available including gloves, boots, safety glasses, hearing protection, and respirators. Where PPE is needed, requirements for its use are integrated into AJHA/JHAs.

The Site has a strong emergency preparedness program, with PTH at the forefront of incident command and control; thus PTH employees are routinely involved in drills and exercises. PTH employees follow the requirements of "host" facilities regarding radiation protection training and program requirements. PTH has a strong medical program founded on a well-established and close relationship with the Site Occupational Medicine organization. PTH policies and procedures are based on appropriate DOE contract clauses, orders, contract documents, and industry standards.

PTH meets the basic requirements of the Hazard Prevention & Control tenet and its sub-elements as described above.

E. Safety & Health Training

The safety & health training processes used by PTH are structured and implemented according to ISM core functions and guiding principles; these processes adequately train workers, supervisors, and managers in recognizing hazards and performing their work safely. Employees who were interviewed during this review, as well as observations made by the Team, confirmed that these processes are used and understood by PTH employees throughout the organization.

PTH meets the basic requirements of the Safety & Health Training tenet and its sub-elements as described above.

IV. Outreach

PTH outreach effort has been strong and consistent throughout the past three years. The Team and the annual VPP Status report identified several ongoing programs. Listed below are a few that are commendable.

1. Greater worker safety awareness has been attributed to the Vital Porcelain Press daily news.

2. PTH developed an event reporting briefing and mentored several organizations at the Hanford site.

3. Presented event report briefing to the OSHA Region X class, Alaska Oil Exploration Company, and Lund Shipping in Oregon.

4. Supported a mentoring response to the protective force at the Pantex site in Texas.

5. PTH has been recognized for participation in the yearly Hanford Safety EXPO for the work they do in the emergency response demonstration for drunk driving that is open to the public – targeted for local school children of driving age.

6. Supported the Benton/Franklin county substance abuse coalition, People Learning About Drugged Driving group, in the development and upgrading of the interactive CD presentation, "What's a Life Worth? The Choice is Yours."

7. Local Municipal and county law enforcement organizations utilize the Patrol Training Academy training instruction and facilities.

8. Training and facilities are utilized and available to all branches of the U.S. Military.

9. PTH developed a partnership with the Criminal Justice Center involving the participants training at the Emergency Vehicle Operations Center (EVOC).

10. PTH provides training support for the DOE IG, U.S. Secret Service, and the Department of State.

11. Supports other Hanford Site contractors and the public, with security demonstrations and seminars (e.g., canine unit demonstrations, personal protective techniques, etc.).

V. Strengths

During this review, the Team noted several strengths within PTH that are indicative of a healthy and comprehensive safety culture. The ISMS principles and methodologies are evident in these behaviors and practices, and illustrate the depth and scope to which PTH values the five main tenets of VPP. Listed below are the strengths noted by Team members during this review.

1. Superb employment of advanced technology for operational and support equipment.

2. Initiated a re-focus effort that is addressing enhanced continuous improvement.

3. Employed a dedicated HGU safety representative to help resolve worker level safety concerns, and function as a liaison between the workforce and management.

4. Strong employee peer groups that foster high work safety standards.

5. Continuing the turnover of VPP and safety leadership roles to worker participants. Examples include turning over the chairing of the safety councils from management back to an elected employee, and re-instituting safety log books throughout the various geographic locations within the company.

6. Integrated safety culture, both at work and at home.

7. Continuous safety support programs (e.g., the superfeet program, ergonomic analysis, heat stress prevention measures, EVOC, 360° Walkaround Program, lead monitoring program, a tailored RadCon program, and carbon monoxide monitoring program).

8. Physical Exercise Program (PEP) – guards are allotted time every shift during work hours to perform physical fitness training.

9. Dedicated, seasoned, responsive, and qualified work force that performs at a superior level.

10. Exceptional guard patrol and special response team forces.

11. Qualified technical support staff.

12. Seamless safety – the guard force safety program operates smoothly and is integrated into their routine duties. The guards also internalize and exhibit great ownership for their own safety, and the safety of others.

13. Employees make conscious efforts to ensure that new safety measures or practices are value added.

14. Experienced Management Team – must balance several difficult aspects inherent to this unique work environment, such as unusual political and corporate relationships, dual work forces, contractual peculiarities, labor association sensitivities, expected changes in future structure, unusual tasks, variable risks, DOE policies out of HQ, the stress of national security requirements, extensive training requirements and qualification stress, and multiple high technology threats. The management team does an excellent job balancing and responding to these challenging priorities.

VI. Best Practices

The Team commends PTH for its continuation as a STAR participant in the Department of Energy Voluntary Protection Program. The Team recognized a majority of PTH ES&H programs as long term assets, which provide excellent value and sufficient worker and management involvement. PTH ES&H programs effectively integrate and implement best practices which have allowed PTH employee involvement to evolve and stabilize a strong safety culture. Examples of PTH programs and processes best practices are:

1. A new assigned budget for annual safety recognition awards;

2. Committee outreach programs;

3. Incorporation of AJHAs in the Exercise and Training programs at PTA;

4. The Refocus Group;

5. Proactive PPE procurement process that provides just-in-time products that address injury reduction concerns, and

6. Realistic skid car and EVOC training.

VII. Areas for Improvement

Although the Team recognizes that PTH has implemented many good programs and practices, as with any healthy continuous improvement program, there are areas for improvement within the safety arena. The following items are areas where the Team noted room for improvement:

1. Stress reduction for guards. Stress levels vary with conditions/situations; however there appears to be urgency on the part of the guard force to implement security/safety adjustments. Timely response to issues raised in this regard would help mitigate stresses on the guards.

2. Recognizing the differences between safety and security requirements would help management to better clarify the significant inter-relationships of safety and security requirements, and would help balance and prioritize the issues.

3. Safety roles for employees and individuals need to be better defined. Some confusion exists in the workforce as to the roles of certain individuals, and the paths that workers have for raising concerns.

4. The feedback loop for safety issues raised to management needs significant improvement, for both Patrol and non-Patrol areas.

5. Overall communications among and between the various workforces within PTH need improvement.

6. Assuring quality of processes needs to be better implemented.

7. Mentoring programs on the Hanford site and within the Tri-cities area are abundant and need to be better utilized by PTH.

8. The HGU Safety Representative Position description needs to be better outlined with clear roles and responsibilities; external mentoring of this person should be provided.

9. Revise the safety improvement plan for 2004 (or equivalent tracking document/process) to include all actions and recommendations identified in the self-evaluation covering 2003.

10. Reinstitute a schedule/tracking process to ensure all areas of the site are inspected at least once every quarter.

11. Continue revitalization of the reporting and tracking process for employee reporting of hazards/concerns in the non-Patrol facilities.

12. Revitalize the trending of non-event safety & health data (i.e., employee reports of hazards and results of inspections).

13. Bring the Safeguards and Security and Patrol "divisions" into a single, cohesive organization. Complete the company-established improvement goals.

14. Enhance PTH/HGU two-way communications utilizing all media forms.

15. Seek informal mentors to assist in the vigilant improvement in the areas of communication, assessment, and validation of process improvement.

VIII. Conclusion

PTH continues to meet and maintain a safety and health program addressing the basic tenets of DOE-VPP.

The past three years since the award of the STAR recognition to PTH have been significant and influential times for the PTH and its VPP. Two events, in particular, have both tested and strengthened the security and safety regimens at PTH. These events have also distracted and placed great stress on their VPP, their leadership, and their workers.

The more significant of these two events was the attacks of September 11, 2001. For an organization whose principle focus is an important element of our national security, PTH responded swiftly and thoroughly, and implemented the needed adjustments to both their security and their safety programs. Indeed, at PTH, these two disciplines are deeply integrated, and the changes that followed both in the short and long term were well coordinated. The Team believes that PTH, with the employment of their STAR VPP, is to be honored for this well-executed response. Safety was not degraded as security was enhanced.

The other event, which may reflect some of the lesser recognized aspects of the generated stress and changes in their noted response, was the notification last summer by the Hanford Guards Union (HGU) that they did not feel VPP was adding value to the workplace. The PTH response was swift and concerted. The Employee Refocus Committee and the associated changes moved quickly to restore the quality performance of the VPP for the HGU. Issues and potential distractions were and are being identified and addressed. Shifts in infrastructures, procedures, training, and in staff utilization have, and are being made. The Annual Star Participation Evaluation VPP Status Report issued in February 2004 documented these events and activities. Additionally, the areas noted by this Refocus effort are also recorded. The Team supports and encourages the vigorous execution of these planned improvements to further sustain the continuous improvement of VPP at PTH.

The dual workforce and dual contractor pool, along with the two significant events described above, have placed stress on both the people and the systems. The Team again recognizes and honors the dedication of the management and employees at PTH for their responses to both these events.

The Team recommends that the PTH be recertified as a STAR.

Appendix

DOE-VPP Review Team Assignments
Protection Technology Hanford

June 24-29, 2004

Name	Organization	Areas of Responsibility
Rex Bowser	DOE Headquarters	Team Leader
Noble Atkins	DOE Richland Operations Office	Outreach
Patti Bailey	CH2M Hill Hanford Richland, Wa.	Conclusions and Recommendations
Theo Martin	DOE Richland Operations Office	Best Practices
Liz Norton	CH2M Hill Hanford Richland, Wa.	Best Practices
Dan Palmer	Fluor Federal Services, Richland, Wa.	Injury/Illness Review and Performance Related to VPP Tenets
Conni Thacker	CH2M Hill Hanford Richland, Wa.	Strengths and Areas for Improvement
Jerry Todd	Fluor Hanford Richland, Wa.	Injury/Illness Review and Performance Related to VPP Tenets